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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,783	06/06/2005	Claus August Bolza-Schunemann	W1.2041 PCT-US	4615

7590 08/07/2006
Douglas R Hanscom
Jones Tullar & Cooper
P O Box 2266
Eads Station
Arlington, VA 22202

EXAMINER

ZIMMERMAN, JOSHUA D

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/537,783

Applicant(s)

BOLZA-SCHUNEMANN, CLAUS
AUGUST

Examiner

Joshua D. Zimmerman

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 102-191 is/are pending in the application.
- 4a) Of the above claim(s) 128-191 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 102-127 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 06/06/2005.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 128-191 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 05/19/2006.

Claim Objections

2. Claim 126 recites the limitations "said first operating state" in line 2 and "said second operating state" in line 3. There is insufficient antecedent basis for these limitations in the claim. For the purposes of examination, examiner interprets the claim to be dependent upon claim 107, in which said limitations have antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 102, 103, 105, 108, 110, 111, 113, 114, 116, 118, 121, 122, and 127 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuneo (JP 01-232045).

Regarding claim 102, Tsuneo teaches "a method for controlling rollers in a roller train of a printing unit (abstract) including:

providing a source of a dampening agent (see the source of dampening solution which is in contact with item 2 in the figure);

providing a first roller adapted for taking up a dampening agent from said source of dampening agent (item 2);

providing a second roller contacting said first roller and receiving said dampening agent from said first roller (item 3);

providing a forme cylinder (item 8);

including said first and said second rollers in a roller train conveying said dampening agent to said forme cylinder (see the configuration of items 2 and 3 in the figure);

providing a first drive motor for driving said first roller (item 10);

rotating said first roller at a first roller surface speed using said first drive motor (abstract: constitution);

providing a second drive motor for driving said second roller (item 11);

rotating said second roller at a second roller surface speed using said second drive motor (abstract: constitution); and

setting one of a surface speed of at least one of said first and second rollers and a slippage between said first and second rollers as a function of an operating condition of said printing press (abstract. The speed of either item 2 or item 3 is controlled in order to maintain the film of water on the plate cylinder)."

Regarding claim 103, Tsuneo further teaches "further including changing said slippage between said first and second rollers as a function of a change in surface

speed of said forme cylinder (abstract: constitution. The speeds of rollers 2 and 3 are independently controlled, thus changing the slippage, based upon the speed of the form cylinder, 8)."

Regarding claim 105, Tsuneo further teaches "further including providing said forme cylinder having a forme cylinder surface speed of rotation and setting at least one of said first roller surface speed and said second roller surface speed as a function of said forme cylinder surface speed (abstract: constitution. The speeds of rollers 2 and 3 are independently controlled based upon the speed of the form cylinder, 8)."

Regarding claim 108, Tsuneo further teaches "further including driving said forme cylinder at a forme cylinder surface speed and controlling said first and second rollers independently of said forme cylinder (abstract: constitution)."

Regarding claim 110, one having ordinary skill in the art would recognize that the drive motors are capable of being "infinitely variably controlled."

Regarding claim 111, Tsuneo further teaches "further including providing said first and second drive motors being electronically controlled (10', 11')."

Regarding claim 116, Tsuneo further teaches "further including providing a third roller in said roller train (item 4), locating said third roller after, in a direction of travel of said dampening agent, said second roller and providing a drive between said second roller and said third roller (items 3 and 4 of Tsuneo are frictionally connected)."

Regarding claim 118, items 3 and 4 of Tsuneo are frictionally connected.

Regarding claim 121, Tsuneo further teaches "further including bringing a last roller in said roller train into contact with said forme cylinder by contacting one of a bridge roller and an ink application roller working with said forme cylinder (roller 4)."

Regarding claim 122, Tsuneo further teaches "further including providing a dampening agent reservoir as said dampening agent source and dipping said first roller into said dampening agent reservoir (see roller 2 dipped into the reservoir of the figure)."

Regarding claim 127, Tsuneo further teaches "further including providing at least one third roller arranged in said roller train downstream, in a direction of travel of said dampening agent and using said third roller for applying said dampening agent to said forme cylinder (roller 4)."

Regarding claim 113, the ability to vary and control the speeds of rollers 2 and 3 of Tsuneo includes "selecting said first roller surface speed as being less than said second roller surface speed."

Regarding claim 114, the ability to vary and control (independently of the form cylinder) the speeds of rollers 2 and 3 of Tsuneo includes "rotating said forme cylinder at a forme cylinder speed and selecting at least one of said first roller surface speed and said second roller surface speed being less than said forme cylinder speed."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 106 and 115 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuneo.

Regarding claim 106, Tsuneo does not specifically teach "selecting an amount of ink required for printing using said forme cylinder and setting said one of said surface speed of at least one of said first and second rollers and said slippage between said first and second rollers as a function of said amount of ink required." However, one having ordinary skill in the art would recognize that the dampening unit of Tsuneo would be used in a printing process and would further recognize that selecting an amount of ink required for printing is an inherent step in a printing process. One having ordinary skill in the art would also recognize that when more ink is required to print, the amount of dampening solution required would decrease, and thus would change "one of said surface speed of at least one of said first and second rollers and said slippage between said first and second rollers" in order to change the amount of dampening solution supplied so as not to supply more dampening solution than is necessary.

Regarding claim 115, Tsuneo does not specifically disclose a roller surface speed. However, one having ordinary skill in the art would recognize that changing speed of the first roller results in changing the amount of dampening solution applied to the form cylinder. It has been held that it is not inventive to discover the optimum or workable ranges of a process by routine experimentation. It would have been obvious to one of ordinary skill in the art at the time of the invention, through routine

experimentation, to provide "first roller surface speed at less than 2 m/s" in order to achieve an optimum amount of dampening solution on the form cylinder.

5. Claim 109 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuneo in view of D'Heureuse et al. (US 5,101,724).

Regarding claim 109, Tsuneo doesn't specifically teach "operating said second roller as a traversing roller." D'Heureuse et al. teach using a second roller as a traversing roller because of its 'evening-out action' (column 1, lines 63-65). It would have been obvious to one of ordinary skill in the art at the time of the invention to make the second roller of Tsuneo a traversing roller in order to achieve a good 'evening-out action.'

6. Claims 104, 112, 117, 119 and 120 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuneo in view of applicant's admitted prior art (AAPA).

Regarding claim 104, Tsuneo does not specifically teach "further including selecting an ink for use in printing by said forme cylinder, forming a mixture of said ink and said dampening agent, wherein a property of said ink includes an amount of said dampening agent mixed with it and setting said one of said surface speed of at least one of said first and second rollers and said slippage between said first and second rollers as a function of said property of said ink." However, AAPA teaches a film-type dampening unit (paragraph 6 of applicant's specification). One having ordinary skill in the art would recognize that film-type dampening units use emulsion inks, and would

recognize that such systems are used because they decrease the start-up time of a printing press. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the film-type dampening system of AAPA into the system of Tsuneo in order to decrease the start-up time of the printing process. Further, one having ordinary skill in the art would recognize that "selecting an ink for use in printing by said forme cylinder, forming a mixture of said ink and said dampening agent, wherein a property of said ink includes an amount of said dampening agent mixed with it" is an inherent step in a printing process using a film-type dampening unit. One having ordinary skill in the art would also recognize that when more dampening solution is present in the ink, the amount of dampening solution required would decrease, and thus would be motivated to change "one of said surface speed of at least one of said first and second rollers and said slippage between said first and second rollers as a function of said property of said ink" in order to change the amount of dampening solution supplied so as not to supply more dampening solution than is necessary.

Regarding claim 112, Tsuneo fails to specifically teach "further including providing a control console and controlling said first and second drive motors from said control console." However, AAPA teaches the use of a control console in order to control the speeds of two dampening solution rollers in order to control the slippage (paragraph 9 of applicant's specification). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the control device of AAPA in the system of Tsuneo in order to control the slippage between the first and second rollers.

Regarding claim 117, Tsuneo fails to teach “further including providing said drive as a gear drive.” However, AAPA teaches replacing friction-controlled rollers with a separate drive mechanism to control the speed of the rollers (paragraph 5 of applicant’s specification). It would have been obvious to one of ordinary skill in the art at the time of the invention to make the drive a gear drive in order to better control the speed of the rollers.

Regarding claim 119, Tsuneo fails to teach the use of a fourth roller positioned downstream of a roller train. However, AAPA teaches the use of a fourth roller to apply dampening solution (paragraph 6 of applicant’s specification). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a fourth roller in the roller train of Tsuneo in order to distribute the dampening solution more evenly.

Regarding claim 120, Tsuneo further teaches “further including setting a slippage between at least one of said second roller and said third roller and said third roller and said fourth roller (abstract. The speed of either rollers 2 and 3 is controlled in order to maintain the film of water on the plate cylinder).”

7. Claim 123 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuneo, as applied to claim 102 above, in view of Wolff et al. (US 6,314,878).

Regarding claim 123. Tsuneo teaches the use of a dampening pan as a dampening solution supply. Tsuneo fails to teach “applying said dampening agent to said first roller as finely distributed droplets.” Wolff et al. teach using a spray device is

an equivalent to using a pan arrangement (column 3, lines 5-10). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a spray device to apply the agent as "finely distributed droplets" instead of using a pan because they are art-recognized equivalents.

8. Claims 107 and 124-126 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuneo in view of Sone et al. (US 6,133,563).

Regarding claim 107, Tsuneo fails to specifically teach two separate operating modes of the dampening unit. However, Sone et al. teach the use of a dampening unit which adjusts speeds of rollers in order to compensate for the speed of the printing press so that an appropriate amount of dampening solution is applied to the press (column 5, lines 45-65). Sone et al. teach "further including providing a dampening unit having said dampening agent source and said roller train and operating said dampening unit selectively in one of a first operating state (Figure 4, the accelerating region C1 or decelerating region C2: that is, the region below speed S3) and in a second operating state (Figure 4, the normal printing regions above speed S3) wherein in said first operating state a surface speed of said forme cylinder and said surface speed of said second roller are in a first relation with each other (column 5, lines 54-65, Figure 4) and wherein in said second operating state said surface speed of said forme cylinder and said surface speed of said second roller are in a second relation with each other (column 5, lines 54-65, Figure 4), said first relation and said second relation being

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different (since the slope of the curves in each section are different, the relationship between the two roller speeds is different).” It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the control method of Sone et al. into the method of Tsuneo in order to provide an appropriate amount of dampening solution to the printing press depending upon the needs of the printing press.

Regarding claim 124, Sone et al. further teach “providing a computer and changing one of said surface speed of one of said first and said second roller and said slippage between said first and second roller using said computer (item 20, column 4, lines 45-51, and column 3, lines 53-56).”

Regarding claim 125, Sone et al. further teach “further including selecting a forme cylinder surface speed being the same in both of said first and second operating states (in both figures 4 and 5, for a given printing speed, the speeds of 2, 28 and 32 are constant; the only speed that is different is the speed of the cylinders 22 and 24).

Regarding claim 126, Tsuneo further teaches “further including selecting a first forme cylinder surface speed in said first operating state (in either the accelerating or decelerating regions specified above) and a second forme cylinder surface speed, different from said first forme cylinder surface speed in said second operating state (the normal printing region specified above).”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Zimmerman whose telephone number is 571-272-2749. The examiner can normally be reached on M-R 8:30A - 6:00P, Alternate Fridays 8:30A-5:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua D Zimmerman
Examiner
Art Unit 2854

jdz

A handwritten signature in black ink, appearing to read "Ren Yan", with a stylized, cursive script.

**REN YAN
PRIMARY EXAMINER**